



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/220,153 12/23/98 REIMER

P 2981/USA/SMO

EXAMINER

IM62/0605

BUEKER, R

LEGAL AFFAIRS DEPARTMENT
APPLIED MATERIALS INC
P O BOX 450A
SANTA CLARA CA 95052

ART UNIT

PAPER NUMBER

1763

DATE MAILED:

06/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☐ Claim(s) 1-99 is/are pending in the application.
- Of the above claim(s) 31-37 + 76-83 is/are withdrawn from consideration.
- ☐ Claim(s) 24-30, 38-75 + 89-91 is/are allowed.
- ☒ Claim(s) 1-6, 8-14, 16-22, 92-95 + 97-99 is/are rejected.
- ☒ Claim(s) 7, 15, 23 + 96 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Art Unit: 1763

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1, 5-6, 16 and 22 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Olson (5,709,753). Olson (see Figs. 3 and 6, col. 9, lines 21-45 and col. 10. lines 21-23) discloses a process chamber that is evacuated by a vacuum pump that is located close to the process chamber. The vacuum pump is a low vacuum pump that discharges to atmospheric pressure. Since the dictionary definition of "adjacent" is "not far", the vacuum pump of Olson is inherently adjacent to the process chamber.

Claims 2-5, 19-22, 92-95 and 97-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson. The particular pipe sizes recited in these claims are prima facie obvious in view of Olson. There is no showing of unexpected results presently of record that would indicate the particular pipe sizes of these claims would provide some unexpected result in the apparatus of Olson.

Claims 1,5-6, 8-9 and 16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lopata (5,904,952). It is noted that the

Art Unit: 1763

dictionary definition of “adjacent” is “not far”. The low vacuum pump of Lopata (see Fig. 2) is not far from either the loadlock chamber or the process chamber.

Claims 2-5, 10-14, 19-21, 92-95 and 97-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopata. The particular pipe sizes recited in these claims are prima facie obvious in view of Lopata. There is no showing of unexpected results presently of record that would indicate the particular pipe sizes of these claims would provide some unexpected result in the apparatus of Lopata.

Claims 1-6, 8-14, 16, 19-21, 92-95 and 97-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopata in view of Olson. If, for argument's sake, the low vacuum pump of Lopata were not considered “adjacent” to the chamber, it would have been obvious to one skilled in the art to place it adjacent to the chamber in view of Olson, who teaches that a low vacuum pump can be successfully placed adjacent to a process chamber.

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (6,080,679). Suzuki discloses (Fig. 16) a high vacuum process chamber set-up in which a low vacuum pump is connected to the process chamber and the high vacuum pump. Fig. 9 of Suzuki illustrates a substrate support and gas distributor, as claimed. While the claims require that the low vacuum pump be adjacent to the chamber, it is noted that adjacent merely means “not far”, and it is inherent in the set-up illustrated by Suzuki that the pump be not far from the chamber. Alternatively, it is at least obvious that the low vacuum pump can be “not far” from the chamber. Since “far” and “not far” are relative terms with wide limits of interpretation, it is proper to say

Art Unit: 1763

that the low vacuum pump of Suzuki is inherently not far from the chamber, or that it is obvious to place the pump not far from the chamber. Also, there is nothing in the disclosure of Suzuki to indicate that the low vacuum pump must be more than 2 meters from the chamber.

Claims 24-30, 38-75 and 84-91 are considered allowable.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Claims 7, 15, 23 and 96 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (703) 308-1895.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Richard Bueker
RICHARD BUEKER
PRIMARY EXAMINER
ART UNIT 1763